

CHAPTER 3***AIR QUALITY MODELING******EMFAC 2002***

The model used to estimate emissions for ozone precursors is EMFAC 2002.

The Conformity Rule requirements for the selection of the horizon years are summarized in Chapter 1. Consultation on the general air quality modeling methodology applied occurred in October and November 2005 through an Interagency Consultation Sub Group meeting and process consisting of Caltrans, the RTPAs of Calaveras and Amador County, FHWA and ARB. The methodology was presented and approved. The subgroup's comments assisted with the development of the final methodology report. The final adopted methodology report is included as part of the consultation record in Appendix "G".

Summary of Procedures for Regional Emissions Estimates

Step-by-step air quality modeling procedures, including instructions, references and controls for the Angels Camp Bypass Project Level Conformity Analysis are available on the Fresno Council of Government (COG) website at http://www.fresnocog.org/aq-modeling/mcc_aqcm.htm. In addition, documentation of the Angels Camp Bypass Project Level Conformity Analysis is provided in Appendix "C", including:

- Vehicle Population Adjustment EMFAC 2002 Default Population and VMT
- Calaveras/Amador VMT by Speed Bin

Action/Baseline Emissions Test Results

| <i>Analysis Year</i> | OZONE PRECURSOR | | | |
|--------------------------|--------------------------------------|-------------|---------------------------|-------------|
| | <i>NO_x (tons per day)</i> | | <i>ROG (tons per day)</i> | |
| | Baseline | Action | Baseline | Action |
| 2008 | <u>6.01</u> | n/a | <u>4.38</u> | n/a |
| 2015 | <u>3.58</u> | <u>3.58</u> | <u>2.55</u> | <u>2.55</u> |
| 2025 | <u>1.55</u> | <u>1.55</u> | <u>1.31</u> | <u>1.30</u> |

In the 2015 scenario, there is no measurable decrease in emissions in the action scenario; however, by 2025 in the action scenario the ROG in tons per day decreases from 1.31 to 1.30. In 2008 there are no new projects in the 2008 analysis year and the emissions are the sum of the county totals.